

LEARNING TOGETHER ABOUT COMPREHENSIVE INSTRUCTION

Purpose	Use this professional development activity to engage Pre-K-8 teachers in discussions of common issues that arise in mathematics instruction. The approach could be used for a cross-grade level professional development.
Materials	Perspectives on Mathematics Instruction worksheet National Mathematics Advisory Panel Report Chapters 5 and 7
Media	<i>Developing Conceptual Understanding, Fluency, and Problem Solving</i> , multi-media overview <i>Simultaneously Teaching Conceptual Understanding, Computational Fluency, and Problem-Solving Skills</i> , video interview with Joan Ferrini-Mundy
Topic	National Math Panel: Critical Foundations for Algebra
Practice	Comprehensive Instruction

1. This professional development activity for teachers of mathematics could be used as a stand-alone session about instruction, embedded within a study group series on instruction, and/or included as one learning activity in a longer session designed to familiarize teachers with the findings of the National Mathematics Advisory Panel (NMP). If the group of teachers is larger than ten, divide them into smaller discussion groups for the interactive portions of the activity.
2. The discussion leader should prepare in advance by previewing the recommended media items and reviewing the NMP Report findings about simultaneous instruction, use of technology, real world contexts, and the importance of effort and persistence.
3. Begin by asking all participants to take a few moments to complete the worksheet independently, jotting down notes that describe their opinions in the first column. Tell them they will have an opportunity after viewing each of two media pieces to adjust the notes they have made.
4. Play the multi-media overview first. Afterwards, ask participants to take a few minutes to review their notes and make any alterations to their opinions in the second column.
5. Play the interview with Joan Ferrini-Mundy and again give teachers time to make additional notes.
6. Begin discussion by having teachers work in pairs or triads. Ask them to focus on areas where they adjusted their notes based on listening to the media pieces. Circulate among the groups to listen to the conversations and determine areas in which participants gained insights and/or still have questions.
7. Review with the whole group the major "take aways" from their discussions. Be sure to reinforce the major messages of the NMP Report, asking for examples from teachers' experiences that illustrate the key points.

Perspectives on Mathematics Instruction

Perspectives	Do you agree? Why or why not?	What do you think now?
Some teachers think that it is important for primary grade students to master basic facts before working on concepts and problem solving.		
Since calculators and computers are so inexpensive and common, some parents and teachers think it might no longer be necessary for students to memorize facts.		
It is always best to base math problems in real-life settings so students can transfer skills to the real world.		
It is good for all students to experience some degree of struggle with mathematics problems.		
Teachers can influence students' beliefs about their own abilities in mathematics.		
The use of instructional software in mathematics instruction can improve student achievement.		
Student-directed instruction is more effective for learning than teacher-directed instruction.		